



## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet 1 of 5

### Complete if Known

Application Number	10/763,578
Filing Date	JANUARY 21, 2004
First Named Inventor	ROBERT W. BOWER
Art Unit	2823
Examiner Name	Quovanda Jefferson
Attorney Docket Number	BOW5075.14A1

U. S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
QVJ		US- 5374564	12/20/1994	Bruel	
QVJ		US- 5494835	02/27/1996	Bruel	
QVJ		US- 5877070	03/02/1999	Goesele et al.	
QVJ		US- 6150239	11/21/2000	Goesele et al.	
QVJ		US- 6162705	12/19/2000	Henley	
QVJ		US- 6346458	02/12/2002	Bower	
QVJ		US- 6352909	03/05/2002	Usenko	
QVJ		US- 6033974	03/07/2000	Henley et al.	
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QVJ		US- 5926720	07/20/1999	Zhao et al.	
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QVJ		US- 5710057	01/20/1998	Kenney	
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QVJ		US- 6140210	10/31/2000	Aga et al.	
QVJ		US- 6159824	12/12/2000	Henley et al.	
QVJ		US- 6225190 B1	05/01/2001	Bruel et al.	

FOREIGN PATENT DOCUMENTS						
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		Country Code <sup>3</sup> Number <sup>4</sup> Kind Code <sup>5</sup> (if known)				

Examiner Signature *Quovanda Jefferson*

Date Considered 12-30-2005

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Sheet 2 of 5**U. S. PATENT DOCUMENTS**

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QWJ		US- 6225192 B1	05/01/2001	Aspar et al.	
QWJ		US- 6069059	05/30/2000	Pan et al.	
QWJ		US- 6124185	09/26/2000	Doyle	
QWJ		US- 6191007 B1	02/20/2001	Matsui et al.	
QWJ		US- 6245249 B1	06/12/2001	Yamada et al.	
QWJ		US- 6290804 B1	09/18/2001	Henley et al.	
QWJ		US- 6426831 B1	07/30/2002	Schmidt et al.	
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Examiner  
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Quorlaunda Jefferson

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Sheet 3	of 5	Attorney Docket Number	BOW5075.14A1

NON PATENT LITERATURE DOCUMENTS			
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QVJ		BOWER, ROBERT W.; LeBOEUF, L.; LI, Y.A.; "Transposed Splitting of Silicon Implanted Hydrogen and Boron with Offset Distributions," ECE Department, University of California, Davis, CA 95616, pp. 1-3, Il Nuovo Cimento, Vol. 19D, No. 12, pp. 1871-1873, 1 January 1998.	
QVJ		BOWER, ROBERT W.; LI, Y.; CHIN, YONG J.; "The Hydrogen Ion Cut Technology Combined with Low Temperature Direct Bonding," ECE Department, University of California, Davis, CA 95616, pp. 1-3, Proceedings of SPIE, Vol. 3184, pp. 2-4; June 1997.	
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QVJ		FREUND, L.B.; "A Lower Bound on Implant Density to Induce Wafer Splitting in Forming Compliant Substrate Structures," Applied Physics Letters, Vol. 70, No. 26, 30 June 1997.	
QVJ		TONG, Q.; GUTJAHR, K.; HOPFE, S.; GOSELE, U.; LEE, T.H.; "Layer Splitting Process in Hydrogen Implanted Si, Ge, SiC, and Diamond Substrates," Applied Physics Letters, Vol. 70, No. 11, 17 March 1997.	
QVJ		BOWER ET AL.; "Transposed Splitting of Silicon Implanted with Spatially Offset Distributions of Hydrogen and Boron," Il Nuovo Cimento Note Brevi, Vol. 19D, No. 12, pp. 1871-1873, December 1997.	
QVJ		LI, Y.A.; BOWER, ROBERT W.; "Surface Roughness of Hydrogen Ion Cut Low Temperature Bonded Thin Film Layers," Journal of Applied Physics, Vol. 39, pp. 275-276, January 2000.	
QVJ		TONG, Q.-Y.; LEE, T.-H.; HUANG, L.-J.; CHAO, Y.-L.; GOSELE, U.; "Low Temperature Si Layer Splitting," Proceedings 1997 IEEE International SOI Conference, pp. 126-127, October 1997.	

Examiner Signature	Quoranda Jeff	Date Considered	12-30-2005
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		Art Unit	2823
		Examiner Name	Quovanda Jefferson
Sheet 4	of 5	Attorney Docket Number	BOW5075.14A1

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
QVJ		AGARWAL, A.; HAYNES, T.E.; VENEZIA, V.C.; EAGLESHAM, D.J.; WELDON, M.K.; CHABAL, Y.J.; HOLLAND O.W.; "Efficient Production of Silicon-on-Insulator Films by Co-Implantation of He+ with H+," Proceedings of 1997 IEEE International SOI Conference, pp. 44-45, October 1997.	
QVJ		http://www.research.ibm.com/ionbeams/home.htm; "Ion Beam Interactions with Matter," The Stopping and Range of Ions in Matter, pp. 1-5, January 1998.	
QVJ		"SOI Interposer Structure," IBM Technical Disclosure Bulletin, Vol. 39, No. 7, pp. 191-195, July 1996.	
QVJ		"Method for Fabricating a Self-Aligned Dual-Gate Structure on an SOI Substrate," IBM Technical Disclosure Bulletin, Vol. 39, No. 7, pp. 163-167, July 1996.	
QVJ		ASPAR, B.; BRUEL, M.; ZUSSY, M.; CARTIER, A.M.; "Transfer of Structured and Patterned Thin Silicon Films Using the Smart-Cut Process," Electronics Letters, Vol. 32, No. 21, pp. 1985-1986, 10 October 1996.	
QVJ		AUBERTON-HERVE, A.J.; "SOI: Materials to Systems," International Electron Devices Meeting 1996, p.3-10.	
QVJ		TONG, Q-Y; BOWER, R.W.; "Beyond 'Smart-Cut': Recent Advance in Layer Transfer for Material Integration," MRS Bulletin, December 1998, pp. 40-43	
QVJ		YUN, C.H.; WENGROW, A.B.; CHEUNG, N.W.; ZHENG, Y.; WELTY, R.J.; GUAN, Z.F.; SMITH, K.V.; ASBECK, P.M.; YU, E.T.; LAU, S.S.; "Transfer of Patterned Ion-Cut Silicon Layers," Applied Physics Letters, Vol. 73, No. 19, 9 November 1998, pp. 2772-2774.	
QVJ		MARWICK, D.; OEHRLEIN, G.S.; WITTNER, M.; "High Hydrogen Concentrations Produced by Segregation into P+ Layers in Silicon," Applied Physics Letters, Vol. 59, No. 2, 8 July 1991, pp. 198-200.	
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Examiner Signature	<i>Quovanda Jefferson</i>	Date Considered	12-30-2005
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QW		PEARTON, S.J.; CORBETT, J.W.; STAVOLA, M.; "Hydrogen in Crystalline Semiconductors," ISBN 3-540-55491-2, Springer-Verlag, 1992.	
QW		LU, S.; IYER, S.S.K.; MIN, J.; FAN, Z.; LIU, J.B.; CHU, P.K.; HU, C.; CHEUNG, N.W.; "SOI Material Technology Using Plasma Immersion Ion Implantation," Proceedings IEEE International SOI Conference, October 1996, pp.48-49.	
QW		VAN WIERINGEN, A.; WARMOLTZ, N.; "On the Permeation of Hydrogen and Helium in Single Crystal Silicon and Germanium at Elevated Temperatures," Physica XXII, pp. 849-865 (1956).	

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